

Abstract of the Disclosure

A clock generator generating a refresh clock signal used in a refresh execution of a semiconductor includes a
5 first MOS transistor diode-connected for outputting a first bias voltage, a source of the first MOS transistor being connected to a supply voltage; a second MOS transistor diode-connected for outputting a second bias voltage, a source of the second MOS transistor being connected to ground voltage; a
10 bias current control means having a predetermined number of serial-connected diodes for serving as a resistance in inverse proportion to a temperature, wherein the bias current control means is coupled between the first MOS transistor and the second MOS transistor to control the first and second bias
15 voltages by using the resistance; and a refresh clock generator generating the refresh clock signal having the frequency which is controlled or adjusted based on the first and second bias voltages.